**CLAIMS**

1.(Original) A reflector arrangement comprising:

a first power splitter comprising first, second, third, and fourth ports with the first port being adapted to be coupled to an at least one remote signal source for receiving signals therefrom and providing feedback signals thereto, where signals received at each of the first and fourth ports are split into first and second portions for transmission via the second and third ports, respectively, and signals received at each of the second and third ports are split into first and second portions for transmission via the first and fourth ports, respectively; and

a second power splitter comprising first, second, third, and fourth ports with the second port serving as an output of the reflector arrangement, and the first, third, and fourth ports being coupled to the second, third, and fourth ports, respectively, of the first power splitter and signals received at each of the first and fourth ports are split into first and second portions for transmission via the second and third ports, respectively, and a signal received at the third port is split into first and second portions for transmission via the first and fourth ports, respectively.

2.(Currently amended) The reflector arrangement of claim 1 further comprising:

~~one of a group consisting of (a)~~ a first transmission filter comprising a first spectral response~~, and (b) a delay line~~ that is coupled between the second port of the first power splitter and the first port of the second power splitter; and

~~one of a group consisting of (a)~~ a second transmission filter comprising a second spectral response~~, and (b) a delay line~~ that is coupled between the third ports of the first and second power splitters.

3.(Currently Amended) The reflector arrangement of claim 2 further comprising ~~one of a group consisting of (a)~~ a third transmission filter comprising a third spectral response~~, and (b) a delay line~~ that is coupled between the fourth ports of the first and second power splitters.

4.(Currently amended) The reflector arrangement of claim 1 wherein:

the received signal from the at least one remote signal source is a multiplexed wavelength signal comprising a plurality of n multiplexed wavelength output signals from a plurality of n remote signal sources;

the first power splitter and the second power splitter are each individual broadband power splitters; and

the reflector arrangement further comprising:

~~one of a group consisting of (a)~~ a first multiplexer/demultiplexer arrangement comprising a first filter spectral response~~, and (b) a delay line~~ that is coupled between the second port of the first broadband power splitter and the first port of the second broadband power splitter, where the

first multiplexer/demultiplexer arrangement comprises a pair of multiplexer/demultiplexers that are coupled to demultiplex a received multiplexed signal at one end and then multiplex the demultiplexed signal for transmission at an other end thereof; and

~~one of a group consisting of (a)~~ a second multiplexer/demultiplexer arrangement comprising a second filter spectral response~~, and (b) a delay line~~ that is coupled between the third ports of the first and second broadband power splitters, where the second multiplexer/demultiplexer arrangement comprises one of a group consisting of a single multiplexer/demultiplexer and a pair of multiplexer/demultiplexers that are coupled to demultiplex a received multiplexed signal at one end and then multiplex the demultiplexed signal for transmission at an other end thereof.

5. (Currently amended) The reflector arrangement of claim 4 further comprising:

~~one of a group consisting of (a)~~ a third multiplexer/demultiplexer arrangement comprising a third filter spectral response~~, and (b) a delay line~~ that is coupled between the fourth ports of the first and second broadband power splitters, where the third multiplexer/demultiplexer arrangement comprises a pair of multiplexer/demultiplexers that are coupled to demultiplex a received multiplexed signal at one end and then multiplex the demultiplexed signal for transmission at an other end thereof.

6.(Original) The reflector arrangement of claim 1 further comprising a third power splitter comprising first, second, third, and fourth input/output ports, the first and second input/output ports being coupled to the third and fourth input/output ports, respectively, of the second power splitter and the third and fourth input/output ports being coupled to the third and fourth input/output ports of the at least one first power splitter, and signals concurrently received at each of the first and fourth input/output ports are split into first and second portions for transmission via the second and third input/output ports, respectively, and signals concurrently received at the second and third input/output ports are split into first and second portions for transmission via the first and fourth input/output ports, respectively.

7.(Original) A reflector arrangement comprising:

a plurality of n first 2x2 power splitters, each first 2x2 power splitter comprising first, second, third, and fourth ports, the first port of each of the 2x2 power splitters being adapted to be coupled to receive an output signal from a separate corresponding one of a plurality of n remote signal sources and providing feedback signals thereto, where signals received at each of the first and fourth ports are split into first and second portions for transmission via the second and third ports, respectively, and signals received at each of the second and third ports are split into first and second portions for transmission via the first and fourth ports, respectively;

a broadband second power splitter comprising first, second, third, and fourth ports, the second port serving as an output of the reflector arrangement, signals received at each of the first and fourth ports are split into first and second portions for transmission via the second and third ports, respectively, and a signal received at the third port is split into first and second portions for transmission via the first and fourth ports, respectively;

a first multiplexer/demultiplexer comprising a first filter spectral response, a plurality of n first ports, and a second port;

each of the plurality of n first ports being coupled to a second port of a corresponding one of the plurality of n first 2x2 power splitters, and the second port being coupled to the first port of the broadband second power splitter;

a second multiplexer/demultiplexer comprising a second filter spectral response, a plurality of n first ports, and a second port, each of the plurality of n first ports being coupled to the third port of a corresponding one of the plurality of n 2x2 first power splitters, and the second port being coupled to the third port of the broadband second power splitter; and

a third multiplexer/demultiplexer comprising a third filter spectral response, a plurality of n first ports, and a second port, each of the plurality of n first ports being coupled to the fourth port of a corresponding one of the plurality of n first 2x2 power splitters, and the second port being coupled to the fourth port of the broadband second power splitter.

8.(Original) A reflector arrangement comprising:

first, second, and third power splitters, each power splitter comprising first, second, third, and fourth ports;

the first port of the first power splitter being coupled to receive a signal from a remote signal generating source, and to transmit a reflected signal back to the remote signal generating source, and the second, third, and fourth ports of the first power splitter being coupled to the first port of the second power splitter and the third and fourth ports of the third power splitter, respectively;

the second port of the second power splitter serving as an output of the reflector arrangement, and the third and fourth ports being coupled to the first and second ports of the third power splitter; and

signals received at each of the first and fourth ports of each of the first, second, and third power splitters are split into first and second portions for transmission via the second and third ports, respectively, and signals received at each of the second and third port is split into first and second portions for transmission via the first and fourth ports, respectively.

9.(Original) The reflector arrangement of claim 8 further comprising a first transmission filter for filtering a signal passing therethrough with a predetermined first spectral response, the first transmission filter being coupled in a path between the second port of the first power splitter and the first port of the second power splitter.

10.(Original) The reflector arrangement of claim 9 further comprising a second transmission filter for filtering a signal passing therethrough with a predetermined second spectral response, the second transmission filter being coupled in a path between the third ports of the second and third power splitters.

11.(Original) The reflector arrangement of claim 10 further comprising a third transmission filter for filtering a signal passing therethrough with a predetermined third spectral response which is different than the first and second spectral responses, the third transmission filter being coupled in a path between the second port of the third power splitter and the fourth port of the first power splitter.

12(New). The reflector arrangement of claim 1 further comprising:

a second transmission filter comprising a second spectral response that is coupled between the third ports of the first and second power splitters; and

a delay line that is coupled between the fourth ports of the first and second power splitters.